

In re: Kapik
Serial No.: 10/678,827
Filed: October 3, 2003
Page 7 of 14

REMARKS

Claims 1-31 are pending. Claims 25-31 are withdrawn.

Claims 1-2, 6 and 8 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,656,581 to Wu et al. ("Wu"). Claims 4-5, 7 and 24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Wu. Claims 1-8 and 24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,517,714 to Sneed et al ("Sneed") in view of U.S. Patent No. 5,711,994 to Powers ("Powers"). Claims 1-24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Powers or U.S. Patent Application No. 2003/0045193 to Snowden et al. ("Snowden") in view of Sneed.

The amendments made herein raise no new issues, and are submitted to narrow the issues and place this case in better condition for appeal (or possibly allowance). Entry of these amendments is respectfully requested.

In re: Kapik
Serial No.: 10/678,827
Filed: October 3, 2003
Page 8 of 14

§102 Rejections Are Overcome

A claim is anticipated under 35 U.S.C. §102 if each claimed element is found in a single prior art reference. *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565, 1576 (Fed. Cir. 1991); *Carella v. Starlight Archery and Pro Line Co.*, 804 F.2d 135, 138 (Fed. Cir. 1986). There must be no difference between the claimed invention and the reference disclosure, as viewed by an ordinary artisan. *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d at 1576.

Applicant's amended Claim 1 recites a method of preparing a barrier fabric, comprising:

- providing a *porous* web of nonwoven material including at least one meltblown nonwoven layer, wherein the *porous* web has a lengthwise direction and a widthwise direction;
- applying a barrier finish to fibers of the *porous* web such that the web retains porosity yet serves as a barrier to liquids, comprising *subjecting the porous web to an aqueous bath of barrier material*;
- stretching the *porous* web in the widthwise direction *between about one percent and about twenty percent (1%-20%) of an initial width* without hindering barrier properties of the *porous* web; and
- subjecting the *porous* web to conditions sufficient to cure the barrier finish.

According to Applicant's invention, a porous web of nonwoven material can serve as a barrier to liquids when fibers thereof are treated with a barrier finish. For example, as illustrated in Table 2 of Example 1 on page 13 of Applicant's specification, the web is porous before and after stretching, yet serves as a barrier to liquids before and after stretching, as well.

The Final Action states that the "process of applying a melt extrudate to a fibrous web meets the claimed limitation of 'applying a barrier finish to the web'." Applicant respectfully disagrees. Wu fails to describe applying a barrier finish to fibers of a *porous* web by *subjecting fibers of the porous web to an aqueous bath of barrier material*. One skilled in the art would readily understand that the extrusion of a non-porous film onto a web as taught by Wu is not the same as applying a barrier finish to the fibers of a porous web. A barrier finish coats the surface of fibers in Applicant's porous web. The barrier finish does *not* fill in pores of the porous web, as would be understood by those skilled in the art of barrier finishes.

In re: Kapik
Serial No.: 10/678,827
Filed: October 3, 2003
Page 9 of 14

The Final Action also states that Wu "teaches stretching the formed laminate in the cross-machine (widthwise) direction" and then concludes that "it is known that the stretching does not hinder barrier properties of the web." However, one skilled in the art would understand that the non-porous film of Wu could not be stretched to the extent that the film becomes compromised (*i.e.*, becomes porous) because it would no longer be capable of serving as a barrier to liquids. Wu describes stretching a film coated web only up to the point where the film becomes microporous (Col. 3, Lines 47-49) but not up to the point where breakage and pin holes are formed (Col. 4, Lines 17-24). Wu discloses only stretching 0.060 inches to 0.120 inches (the depth of roller engagement) (Col. 9, Lines 19-25). Such small incremental stretching does not compromise the film of Wu.

Wu fails to describe stretching a porous web in the widthwise direction between about one percent and twenty percent. One skilled in the art would understand that stretching a film coated web between 1% and 20% of the width of the web would mechanically break the film and destroy the barrier properties thereof. Wu describes an air knife (3, Fig. 1) for applying a film to a web having a length of about 120 inches (Col. 10, Line 33). Thus, assuming the Wu web is 120 inches in width, a 1% - 20% width increase would be between 1.2 inches and 24 inches. Wu fails to describe stretching a film coated web between 1.2 and 24 inches.

Clearly, to the ordinary artisan, there is substantial difference between the recitations of Claim 1 and the films and laminates of Wu. Because Wu fails to disclose all of the recited elements of independent Claim 1, independent Claim 1, and all claims depending therefrom, are not anticipated by Wu. As such, the rejections under 35 U.S.C. §102 are overcome.

In re: Kapik
Serial No.: 10/678,827
Filed: October 3, 2003
Page 10 of 14

§103 Rejections Are Overcome

To establish a *prima facie* case of obviousness, the prior art reference or references when combined must teach or suggest *all* the recitations of the claims, and there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. M.P.E.P. § 2143. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. M.P.E.P. § 2143.01(citing *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990)). As emphasized by the Court of Appeals for the Federal Circuit, to support combining references, evidence of a suggestion, teaching, or motivation to combine must be **clear and particular**, and this requirement for clear and particular evidence is not met by broad and conclusory statements about the teachings of references. *In re Dembiczak*, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). The Court of Appeals for the Federal Circuit also has stated that, to support combining or modifying references, there must be **particular** evidence from the prior art as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed. *In re Kotzab*, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000).

Furthermore, as stated by the Federal Circuit with regard to the selection and combination of references:

This factual question of motivation is material to patentability, and could not be resolved on subjective belief and unknown authority. It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to "[use] that which the inventor taught against its teacher." W.L. Gore v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983). Thus the Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion....

In re Sang Su Lee, 277 F.3d 1338, 1343 (Fed. Cir. 2002).

The Final Action states that "Powers does teach applying a 'barrier finish' to a nonwoven web." (Final Action, Page 4). The Final Action concedes that Sneed does not teach applying a barrier finish and that Powers does not teach stretching. (Final Action, Page

In re: Kapik
Serial No.: 10/678,827
Filed: October 3, 2003
Page 11 of 14

4). However, the Final Action concludes that the combination of Sneed and Powers suggests applying a barrier finish to a nonwoven barrier fabric web and then stretching the web in a cross direction. (Final Action, Page 4). The Final Action goes on to state "one skilled in the art, upon seeing the two references in combination, would have been motivated to apply the barrier finish coating of Powers to Sneed et al.'s nonwoven web in order to provide Sneed et al.'s barrier fabric with desirable antistatic and repellent properties taught by Powers." (Final Action, Page 4).

Applicant respectfully asserts that this is contrary to the requirements for establishing obviousness as set forth by the Federal Circuit. As clearly stated by the Federal Circuit, to support combining or modifying references, there must be **particular evidence** from the prior art as to the reason the *skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination* in the manner claimed. The Final Action has done just the opposite by combining Powers and Sneed first and then concluding this combination would be obvious to one skilled in the art. This is clearly the use of hindsight reasoning informed by Applicant's disclosure, which is an inappropriate basis for combining references.

A person of skill in the art would not be motivated to combine Powers and Sneed without using Applicant's disclosure as a road map. Sneed describes a process for making a nonwoven fabric barrier layer by simultaneously ring-rolling to the desired basis weight at least two adjacent plies of hydrophobic microfine fiber webs. The web plies of Sneed are stretched and enmeshed with each other while passing between the interdigitating rolls and are, thus, bonded together to produce a barrier layer. The web plies of Sneed do not have a barrier finish applied thereto prior to being stretched and enmeshed with each other via the interdigitating rolls. Sneed fails to teach or suggest applying a barrier finish to a web of nonwoven material and then stretching the web in the widthwise direction without hindering barrier properties of the web. Moreover, no clear and particular evidence from Sneed has been provided by the Final Action why one skilled in the art would be motivated to look to a reference that teaches treating nonwoven fabrics with a barrier finish.

Powers describes subjecting one or both sides of a nonwoven to an atomized spray of neat or nearly neat treating composition under controlled conditions of a generally

In re: Kapik
Serial No.: 10/678,827
Filed: October 3, 2003
Page 12 of 14

uniform atomized atmosphere. According to Powers, drying and its deleterious effects are essentially or completely unnecessary, and the process provides means to uniformly treat one or both sides of the nonwoven to a desired degree. (Powers, Col. 1, Lines 55-65). Powers fails to teach or suggest a nonwoven web having a barrier finish thereon that is then stretched in the widthwise direction without hindering barrier properties of the web. In fact, there is no disclosure anywhere in Powers regarding applying barrier finishes to nonwoven webs. Moreover, there is no disclosure anywhere in Powers regarding stretching, in a cross direction, nonwoven webs that have barrier finishes applied thereto. Moreover, no clear and particular evidence from Powers has been provided by the Final Action why one skilled in the art would be motivated to look to a reference that teaches stretching, in a cross direction, nonwoven webs.

Thus, it appears that the Final Action gains its impetus or suggestion to combine Sneed and Powers by hindsight reasoning informed by Applicant's disclosure, which, as noted above, is an inappropriate basis for combining references. Accordingly, Applicant respectfully requests withdrawal of the present rejections under 35 U.S.C. §103.

The Final Action maintains Claims 1-24 are unpatentable over Powers or Snowden in view of Sneed. The Final Action states that "there is motivation for modifying the Powers or Snowden references to incorporate a stretching step, as taught by the Sneed et al. reference" because Powers and Snowden "both teach that the bonding of their SMS layers may be performed by a number of conventionally known techniques" and because Sneed is cited for its "teaching of stretching multiple nonwoven layers widthwise simultaneously while also bonding the layers using interdigitating rollers." (Final Action, Page 5). Applicant respectfully disagrees.

With respect to Snowden, only thermal bonding is described therein as a method for bonding multiple layers together. (See, Paragraph 0024, Paragraph 0033, Paragraph 0039, Paragraph 0045, Paragraph 0052, and Paragraph 0058). Nothing in Snowden teaches or suggests using any other method for bonding multiple layers together. Moreover, nothing in Snowden teaches or suggests stretching a nonwoven web that has a barrier finish thereon while maintaining barrier properties of the web, whether for bonding or for any other purpose. In fact, there is no disclosure anywhere in Snowden regarding

In re: Kapik
Serial No.: 10/678,827
Filed: October 3, 2003
Page 13 of 14

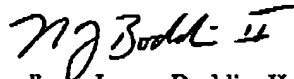
stretching a nonwoven web. Accordingly, the Final Action has failed to produce any clear and particular evidence, as required by the Federal Circuit, as to why one skilled in the art would seek Sneed for the purpose of stretching the Snowden laminate when Snowden doesn't teach or suggest a need to stretch and doesn't teach or suggest using any other bonding method other than thermal bonding.

With respect to Powers, Powers states that "bonding can be accomplished in a number of ways such as hydroentanglement, needling, ultrasonic bonding, adhesive bonding, stitchbonding, through-air bonding and thermal bonding." (Col. 6, Lines 25-30). Nothing in Powers teaches or suggests stretching a nonwoven web, whether for bonding or for any other purpose. Accordingly, the Final Action has failed to produce any clear and particular evidence, as required by the Federal Circuit, as to why one skilled in the art would seek Sneed for the purpose of stretching the Powers nonwoven fabrics when Powers does not teach or suggest a need to stretch and does not teach or suggest using interdigitating rollers to bond multiple layers together.

Accordingly, Applicant respectfully requests withdrawal of the present rejections under 35 U.S.C. §103.

In view of the above, it is respectfully submitted that this application is in condition for allowance, which action is respectfully requested.

Respectfully submitted,



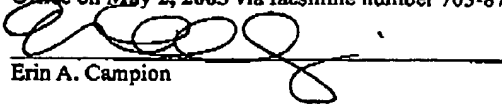
Needham James Boddie, II
Attorney for Applicant
Registration No. 40,519

USPTO Customer No. 20792
Myers Bigel Sibley & Sajovec, P.A.
Post Office Box 37428
Raleigh, North Carolina 27627
Telephone: (919) 854-1400
Facsimile: (919) 854-1401
Doc. No. 429858

In re: Kapik
Serial No.: 10/678,827
Filed: October 3, 2003
Page 14 of 14

CERTIFICATION OF FACSIMILE TRANSMISSION UNDER 37 CFR § 1.8

I hereby certify that this correspondence is being transmitted by facsimile to the U.S. Patent and Trademark Office on May 2, 2005 via facsimile number 703-872-9306.


Erin A. Campion